

KHEYFETS, L.G., inzh.; CHEKAREV, V.A., kand. tekhn. nauk.

Eliminate losses in working time during mine construction. Shakht. stroi.  
9 no.2:5-6 F '65. (MIRA 18:4)

1. Tsentral'noye normativno-issledovatel'skoye byuro pri Nauchno-  
issledovatel'skom institut ekonomiki stroitel'stva Gosstroya  
SSSR (for Kheyfets). 2. Nauchno-issledovatel'skiy institut ekonomiki  
stroitel'stva Gosstroya SSSR (for Chekarev).

GADASKINA, N.D.; REMIZ, Ye.E.; RUDKOVSKIY, D.M.; Prinsipal'ni uchastiye:  
~~REZIN, L.L.~~; KHAUSE, N.I.

Products from the condensation of polyatomic alcohols with ethylene oxide, and esters of these products. Zhur. prikl. khim. 33  
no.9:2132-2135 S '60. (MIRA 13:10)  
(Ethylene oxide) (Alcohols)  
(Condensation products (Chemistry))

ZAYTSEV, Nikolay Alekseyevich; MASKALIK, Aleksandr Isaakovich;  
PASHIN, V.M., inzh., retsenzent; KHEYFETS, L.L., inzh.,  
retsenzent; KUSKOVA, A.I., red.

[Soviet ships on underwater wings] Otechestvennye suda na  
podvodnykh kryl'iakh. Leningrad, Sudostroenie, 1964. 206 p.  
(MIRA 17:10)

YEFIMOV, A.N., glav. red.; BACHURIN, A.V., red.; VOLODARSKIY, L.M., red.; GERSHBERG, S.R., red.; GINZBURG, S.Z., red.; DUNDUKOV, G.F., red.; KINZHNER, D.M., red.; KLIMENKO, K.I., red.; KOMAROV, F.V., red.; KOROL'KOV, A.N., red.; KICYLOV, P.N., red.; LIVANSKAYA, F.V., red.; LOKSHIN, E.Yu., red.; OSTROVITYANOV, K.V., red.; POSVYANSKIY, S.S., red.; PRUDENSKIY, G.A., red.; RAZUMOV, N.A., red.; RUMYANTSEV, A.F., red.; TATUR, S.K., red.; SHUKHGAL'TER, L.Ya., red.; BAZAROVA, G.V., starshiy nauchnyy red., kand. ekon. nauk; KISEL'MAN, S.M., starshiy nauchnyy red.; GLAGOLEV, V.S., nauchnyy red.; TUMANOVA, N.L., nauchnyy red.; BLAGODARSKAYA, Ye.V., mlad. red.; SHUSTROVA, V.M., mladshiyy red.; GAYDUKOV, Yu.A., kand. ekon. nauk, red.; ZBARSKIY, M.I., red.; LOZOVY, Ya.D., red.; SERGEYEV, A.V., dots., red.; KHEYFETS, L.M., kand. tekhn. nauk, red.; LYUBOVICH, Yu.O., kand. ekon. nauk, red.; SYSOYEV, P.V., red.; KOSTI, S.D., tekhn. red.

[Economic encyclopedia; industry and construction] Ekonomicheskaya entsiklopediya; promyshlennost' i stroitel'stvo.

Chleny red. kollegii: A.V.Bachurin i dr. Moskva, Gos.nauchn. izd-vo "Sovetskaya entsiklopediya." Vol.1. A - M. 1962.

951 p.

(MIRA 15:10)

(Russia--Industries--Dictionaries)  
(Construction industry--Dictionaries)

KHEYFETS, L. M.

The fundamentals of using tools Moskva, Gos. nauchnotekhn izd-vo mashinostroit. lit-ry  
1946. 167 p. (54-27894)

TJ1185.K45

KHEYFETS, L. M. Dr. Tech. Sci.

Dissertation: "Fundamentals of the Theory of Technical Control." Moscow Order of the Labor Red Banner, Higher Technical School, imeni N. E. Bauman, 17 Mar 47.

SO: Vechernyaya Moskva, Mar, 1947 (Project #17836)

**KREYFETS, L.M., dotsent, kandidat tekhnicheskikh nauk.**

Technical and economic problems in designing new printing machinery.  
Nauch.trudy VZPI no.2:227-251 '55. (MLRA 9:3)  
(Printing machinery and supplies)

KHMYETS, L.M., kandidat tekhnicheskikh nauk.

Expenditure of metals in manufacturing printing machinery. Vest.  
mash. 37 no.7:69-72 J1 '57. (MLHA 10:8)  
(Printing press)

XHEYPETB, L.M., kand. tekhn. nauk.

Standardising the design of printing machinery. Vest. mash. 38 no.4:  
69-70 Ap '58. (MIRA 11:3)

(Printing machinery and supplies)

KHEYFETS, Lev Moiseyevich; LAFAZAN, M., red.; MALEK, Z., tekhn. red.

[Technical and economic problems of the design and modernization of printing machinery] Tekhniko-ekonomicheskie voprosy konstruirovaniia i modernizatsii poligraficheskikh mashin. Moskva, Izd-vo "Iskusstvo," 1962. 222 p. (MIRA 15:11)  
(Printing machinery and supplies)

KHEVETS N.S.  
KOSTETSKIY, Boris Ivanovich; PREYS, Georgiy Aleksandrovich; YELISEYEV,  
Vasil'y Dmitriyevich; KHEVETS, L.S., kandidat tekhnicheskikh  
nauk, retsenzent; SAMOKHVALOV, Ya.A., inzhener, redaktor;  
LEUTA, V.I., inzhener, redaktor; HUDENSKIY, YA.V., tekhnicheskii  
redaktor.

[Testing the wear of metals; methods and machines] Ispytanie  
metallov na iznos; metody i mashiny. Kiev, Gos.nauchno-tekhn.  
izd-vo mashinostroitel'noi lit-ry, 1955. 125 p.(MLRA 9:1)  
(Metals--Testing) (Testing machines)

DOBROVOL'SKIY, Viktor Afanas'yevich; RAYKO, M.V., red.; KHEYFETS, L.S.,  
red.; VASILENKO, M.A., red.izd-va; GORKAVENKO, L.I., tekhn.red.

[Designing machine parts; examples with detailed solutions]

Raschet detalei mashin; primery s podrobnymi resheniyami.

Izd.8, Kiev, Gos.izd-vo tekhn.lit-ry USSR, 1961. 389 p.

(MIRA 14:7)

(Machinery--Design)

GAL' BINSHTeyN, Z.N., inzh.; IL'INA, N.F., inzh.; NAUMOVA, M.V., inzh.;  
 FILINA, T.A., inzh.; KHODOS, M.M., inzh.; GOL'DMAN, Zh.I.;  
 PATALAKH, V.G.; SNESAREV, M.M.; VUL'FSON, Ye.S., inzh.;  
 KONSTANTINOVA, L.A., inzh.; SKOBELEVA, A.M., inzh.; TEL'NOVA,  
 Ye.V., inzh.; KHEYFETS, I.S., inzh.; SELENEVICH, A.S.;  
 NEDOVESENKO, M.V.; VOLKOVA, A.Ye.; NOVITSKIY, L.M., nauchn.red.;  
 NEFEDOV, S.F., red.; ROSTOTSKIY, V.K., red.; GORDEYEV, P.A., red.  
 izd-va; YUDINA, L.A., red.izd-va; VDOVENKO, Z.I., red.izd-va;  
 GOL'BERG, T.M., tekhn.red.; KOROIKOVA, N.I., tekhn. red.

[Album of new construction equipment recommended for adoption]  
 Al'bom novoi stroitel'noi tekhniki, rekomenduemoi k vnedreniiu.  
 Moskva, Gosstroizdat, 1963. No.1. [Industrial construction] Pro-  
 myshlennoe stroitel'stv. 116 p. No.3. [Construction for transporta-  
 tion purposes] Transportnoe stroitel'stvo. 91 p. No.4. [Rural  
 construction] Sel'skoe stroitel'stvo. 71 p. No.5. [Building  
 materials, products, and elements] Stroitel'nye materialy, izde-  
 lliia i konstruksii. 41 p. No.8. [Construction and road machinery  
 and equipment] Stroitel'nye i dorozhnye mashiny i oborudovanie.  
 104 p. (MIRA 16:8)

(Building materials) (Road machinery)  
 (Construction equipment)

ANDREYEVA, M.; KHEYFETS, I.S.; GOL'SKAYA, I.F., inzh.-metodist;  
VODYANITSKAYA, Zh.I.; KOZHEVNIKOVA, E.I., starshiy nauchnyy  
sotrudnik; ELIDMAN, A.I.; VORONOV, B.V.

Exhibitions and displays. Inform. biul. VDNKH no.11:10-11,15-18,  
26-27,31-32 N '63 (MIRA 18:1)

1. Starshiy ekskursvod pavil'ona "Khimicheskaya promyshlennost'" na Vystavke dostizheniy narodnogo khozyaystva SSSR (for Andreyeva).
2. Glavnyy inzh. pavil'ona "Stroitel'nyye materialy" na Vystavke dostizheniy narodnogo khozyaystva SSSR (for Kheyfets).
3. Pavil'on "Energeticheskoye stroitel'stvo" na Vystavke dostizheniy narodnogo khozyaystva SSSR (for Gol'skaya).
4. Direktor pavil'ona "Sel'skoye stroitel'stvo" na Vystavke dostizheniy narodnogo khozyaystva SSSR (for Vodyanitskaya).
5. Pavil'on "Sel'skoye stroitel'stvo" na Vystavke dostizheniy narodnogo khozyaystva SSSR (for Kozhevnikova).
6. Starshiy inzh.-metodist po khraneniyu i pererabotke zerna pavil'ona "Khraneniye i pererabotka zerna" na Vystavke dostizheniy narodnogo khozyaystva SSSR (for Elidman).
7. Glavnyy metodist pavil'ona "Professional'notekhnicheskoye obrazovaniye" na Vystavke dostizheniy narodnogo khozyaystva SSSR (for Voronov).

KHEYFETS, L.Ya.; PREOBRAZHENSKAYA, Ye.A.; BEZUGLYY, V.D.

Polarographic determination of two substances with close half-wave potentials when they are present together. Zhur. anal. khim. 19 no.5:607-609 '64. (MIRA 17:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov, stshintillyatsionnykh materialov i osobo chistyykh khimicheskikh veshchestv, Khar'kov.

BEZYOLYY, V.D.; KHEYFETS, L.Ya.; PREOBRAZHenskAYA, Ye.A.

Polarographic determination of benzanthrone, bromobenzanthrone, and dibromobenzanthrone when present together. Zhur.anal.khim. 19 no.10: 1258-1263 '64. (MIRA 17:12)

1. All-Union Scientific Research Institute of Monocrystals, Scintillating Materials and Specially Pure Chemicals, Khar'kov.

BEZUGLYY, V.D.; KHEYFTS, L.Ya.; PREOBRAZHenskAYA, Ye.A.

Determination of anthraquinone and carbazole in anthracene by  
the polarographic method. Zhur. anal. khim. 19 no.11:1402-1406  
'64. (MIRA 18:2)

1. All-Union Scientific-Research Institute of Monocrystals,  
Scintillating Materials and Specially Pure Chemicals, Kharkov.

BEZUGLYY, V.D.; KHEYFETS, L.Ya.; PRECBRAZHENSKAYA, Ye.A.

Determination of halcanthraquinones in the presence of amino derivatives of anthraquinone by the polarographic method.  
Zhur. anal. khim. 20 no.6:733-738 '65. (MIRA 18:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov, stsintillyatsionnykh materialov i osobo chistykh khimicheskikh veshchestv, Khar'kov.

KHEYFETS, L.Ya.; PREOBRAZHENSKAYA, Ye.A.; BEZUGLYY, V.D.

Polarographic study of polycyclic aromatic ketones. Part 1:  
Polarography of benzanthrone in 70% methanol. Zhur. ob. khim.  
35 no.10:1703-1707 O '65. (MIRA 18:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov.

KHEYFETS, L.Ya.

Method for determining the nature of polarographic current as a function of the mercury column height. Zhur. anal. khim. 20 no.3: 388-390 '65. (MIRA 18:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov, stsintillyatsionnykh materialov i osobo chistykh khimicheskikh veshchestv, Khar'kov.

GEL'FMAN, A. Ya.; GRANOVSKIY, G. L.; KHEYFETS, L. Ya.

Simple radiographic method for dactyloscopic investigations.

Atom. energ. 17 no.1:71 J1 '64.

(MIRA 17:7)

KHEYFETS, L. Z.

25979. Kheyfets, I. Z. Sel'skokhozyaustvennyy travmatizm i ego profilaktika. Pol'dsher i akusherka, 1949, No 7, s. 3-7

SO: Knizhnaya Letopis', Vol. 1, 1955

**KHEYFETS, L.Z., starshiy nauchnyy sotrudnik**

Results of treating chronic osteomyelitis due to gunshot wounds in  
invalids of the Second World War. Ortop.travm. i protez. no.5:29-33  
S-0 '55. (MIRA 9:12)

1. Iz TSentral'nogo instituta travmatologii i ortopedii (dir. - chlen-  
korrespondent AMN SSSR prof. N.N.Priorov)

(OSTEOMYELITIS, etiology and pathogenesis  
gunshot wds. ther. results in veterans in Russia)

(VETERANS, diseases  
osteomyelitis due to gunshot war wds., ther. results in  
Russia)

SHANGIN, Nikifor Ivanovich, kandidat meditsinskikh nauk; ~~KHEIFETS, L.Z.~~,  
redaktor; BEL'CHIKOVA, Yu.S., tekhnicheskiiy redaktor

[Work hygiene for machine-tractor station employees] Gigiena truda  
rabochikh MTS. Iss. 2-e, ispr. 1 dop. Moskva, Gos. izd-vo med. lit-  
ry, 1956. 44 p. (MIRA 9:10)

(MACHINE-TRACTOR STATIONS---HYGIENIC ASPECTS)

KHRYFETS, L.Z., kandidat meditsinskikh nauk; LIST, Ye.V.

Traumatological and orthopedic services to children. Ortop., travm. i  
protes. 17 no.3:75-78 My-Je '56. (MLRA 9:12)  
(CHILDREN--SURGERY)

**KHEYFETS, L.Z.**, kandidat meditsinskikh nauk (Moskva)

Prevention of injuries in the peat industry. Fel'd. i akush. 21  
no.6:24-28 Je '56. (MIRA 9:9)

(PEAT INDUSTRY--SAFETY MEASURES)

MOROZOVA, Ye.M., starshiy nauchnyy sotrudnik; KHEYFETS, L.Z., starshiy  
nauchnyy sotrudnik

Expanded plenary session of learned councils of institutes of trauma-  
tology and orthopedics on results of treating injuries of the skeleto-  
muscular system. Ortop.travm.i protez. 20 no.8:77-81 Ag '59.

(MIRA 12:11)

(ORTHOPEDIA--CONGRESSES)

KHEYFETS, Lyubov' Zakharovna, kand.med.nauk; SUMNIK, Z.A., red.;  
ATROSHCHENKO, L.Ye., tekhn.red.

[First aid in rural areas] Pervaya dovrachebnaya pomoshch'  
na sele. Moskva, Izd-vo "Znanie," 1960. 44 p. (Vsesoiuznoe  
obshchestvo po rasprostraneniю politicheskikh i nauchnykh  
znaniy. Ser.12, Bibliotekha sel'skogo lektoha, no.16).  
(MIRA 14:1)

(FIRST AID IN ILLNESS AND INJURY)

PRIOROV, Nikolay Nikolayevich[deceased]; DVORKIN, Aleksandr Markovich;  
KHEYFETS, Lyubov' Zakharovna; BLISEYEVA, A.V., red.; ZUYEVA,  
N.K., tekhn. red.

[Prevention of accidents in agriculture and medical care in  
injuries] Profilaktika travmatizma v sel'skokhoziaistvennom  
proizvodstve i lechebnaia pomoshch' pri travmakh. Moskva, Med-  
giz, 1962. 218 p. (MIRA 15:7)

(~~AGRICULTURE~~-ACCIDENTS) (WOUNDS--TREATMENT)

KHEYFETS, L.Z., kand.med.nauk.

Prevention of frostbites. Zdorov'e 9 no.1:30-31 Ja '63. (MIRA 16:7)  
(FROSTBITE)

KHEYFETS, L.Z., starshiy nauchnyy sotrudnik; MOROZOVA, Ye.M., starshiy nauchnyy sotrudnik (Moskva)

Late results of treatment of invalids of the Patriotic War  
with ~~sequelae of combat traumatism~~. Sov. ~~mir~~. 22 no.6:  
50-54'63. (MIRA 16:9)

1. Iz TSentral'nogo instituta travmatologii i ortopedii (dir.  
prof. M.V.Volkov) Ministerstva zdavookhraneniya SSSR.  
(VETERANS, DISABLED—MEDICAL CARE)

VOLKOV, M.V., prof.; KHEYFETS, L.Z., starshiy nauchnyy sotrudnik

First All-Union Conference of Traumatologists and Orthopedists.  
Ortop., travm. i protez. 25 no. 1:76-83 Ja '64. (MIRA 17:9)

1. Chlen-korrespondent AMN SSSR (for Volkov).

MIRONOVA, Zoya Sergeyevna; KHEYFETS, Lyubov' Zakharovna;  
DVORKIN, A.M., red.; DESHIN, D.F., red.

[Prevention and treatment of sports injuries] Profilak-  
tika i lechenie sportivnykh travm. Moskva, Meditsina,  
1965. 156 p. (MIRA 18:10)

KHEYFETS, M., inzh.; LYAKHOV, K.

New developments in the schedule of fleet movements in central basins. Rech. transp. 21 no.6:8-9 Je '62. (MIRA 15:7)

1. Zamestitel' nachal'nika sluzhby perevozok i dvizheniya flota Volzhskogo ob'yedinennogo rechnogo parokhodstva.  
(Volga Valley--Inland water transportation)

KHEYFETS, M., inzh.; LYAKHOV, K., inzh.

Calculating time norms for the transfer of ships through lock systems.

Rech. transp. 22 no.3:11-13 Mr '63.

(MIRA 16:4)

(Locks (Hydraulic engineering))

(Inland navigation)

BAGROV, L., inzh.; LYAKHOV, K., inzh.; KHEYFETS, M., kand.tekhn.nauk

New trends in the "Regulations on the traffic schedule of the fleet."  
Rech. transp. 24 no.4:5-7 '65. (MIRA 18:5)

KHMYFETS, M.A., podpolkovnik meditsinskoy sluzhby

Case for a comparative series of culture media. Voen.-med. zhur.  
no.5:43-45 My '50. (MIRA 9:9)

(BACTERIOLOGY—CULTURES AND CULTURE MEDIA)

KHEFFETS, M.

Peptones

Non-fermentation method for preparing peptone and culture media. Mas. ind. 23  
No. 4, JI-ag '52.

Monthly list of Russian Accessions, Library of Congress, December 1952. UNCLASSIFIED.

1. KHEYFETS, M.
2. USSR (600)
4. Meat - Bacteriology
7. Precipitation method in meat research. Mias.ind. SSSR 23 no. 6, 1952.
9. Monthly Lists of Russian Accessions, Library of Congress, March 1953, Unclassified.

KHEYFETS, M. A.

"A Rational Method for the Microanalysis of Meat and Meat Products." Cand  
Biol Sci, Moscow Pelt and Fur Inst, Moscow 1953. (RZhKhim, No 6, Mar 55)

So: Sum. No 670, 29 Sept 55 - Survey of Scientific and Technical Dissertations  
Defended at USSR Higher Educational Institutions (15)

KHEYFETS, M. A.

PA 244T48

USSR/Medicine - Paratyphoid

Mar 53

"Precipitation With Hapten As a Method of Determining the Infection of Meat With Paratyphoid," M. A. Kheyfets, Leningrad Meat Combine imeni S. M. Kirov

"Zhur Mikrobiol, Epidemiol, i Immunobiol" No 3, p 79

Hapten is obtained by acid extraction of 24-hr-old cultures of microbes which have developed on a liquid medium seeded with material obtained from meat. It was established by investigating 2,000 samples of meat that the reaction of pptn with hapten is more sensitive and leads to more precise results than the bacteriological examination of meat.

244T48

KAZAKOV, A.M. [author]; KHEIFETS, M.A. [reviewer].

"Microbiology of meat." A.M.Kazakov. Reviewed by M.A.Kheifets. Vop.pit. 12  
no.4:86-88 J1-Ag '59. (MIRA 6:10)

(Meat--Bacteriology) (Kazakov, A.M.)

KHEYFETS, M. A.

U S S R .

A selective nutrient medium for the identification of intestinal bacteria. M. A. Kheifets (S. M. Kirov Meat Combine, Leningrad) *Voprosy Pitaniya* 13, No. 3, 41-3 (1954) —To 1 l aq. soln. contg. peptone 1%, NaCl 0.5%, mannite or glucose 0.5%, add after adjusting the pH to 7.4-7.6 and filtering of the soln. 1 ml. of 5% alc. soln. of resorlic acid and 2.5 ml. of 1% aq. soln. of methylene blue.

the color of the mixt. is red-violet. In order to detect the presence of intestinal bacteria (I) in a food product prep. an aq. (1:9) suspension of the product transfer 5 ml. of the suspension into a test tube contg. 4 ml. of the medium soln., and incubate the sample (at 37°) at least for 10 hrs. In the absence of I the color of the medium remains unchanged, in the presence of saprophytic bacteria the color changes to a pale rose, red-violet, slight green, slight yellow, or blue. In the presence of I the color changes to a clear grasslike green, and the soln. possesses a definite bacterial turbidity. In the case 8-10 ml. of the medium soln. is used shake the tubes after incubation to secure the aerobic conditions throughout the sample, otherwise a yellow color can be formed occasionally. In the case of paracoli or paratyphoid bacteria the intensity of the green color developed is much higher and the degree of turbidity much lower than in the case of I. To differentiate still better these 2 groups of microorganisms, put a 5 X 4-cm. piece of filter paper into the test tube, sterilize the tube and the paper, and add to it 3.5 ml. of the suspension of a food being tested followed by the addition of the nutrient medium. In the case of I the filter paper remains white, otherwise it acquires a blue-green color (positive test for paracoli and paratyphoid bacteria). R. W. (64) 61

KHEYFETS, M. A.

~~KHEYFETS, M.A.~~

Bacteriology of cooked sausages. Vop. pit. 13 no.4:30-33 J1-Ag '54.  
(MLRA 7:7)

1. Iz laboratorii Leningradskogo myasokombinata imeni S.M.Kirova.  
(FOOD,  
\*sausages, bacteriol.)  
(BACTERIA,  
\*in sausages)

~~KHWEYFETS, M.A.~~

Gas formation in cultures of *Excherichia coli*. Lab.delo no.1:19-20  
Jan.Feb. '55. (MLRA 8:8)

1. Iz laboratorii Leningradskogo myasokombinata im.S.M. Kirova.  
(*EXCHERICHIA COLI*, culture,  
gas form. in)

KHEXFETS, M.A.

Hygienic aspects of the preparation of certain meat products.  
Vop.pit. 15 no.2:48-49 Mr-Apr '56. (MLRA 9:7)

1. Is laboratorii Leningradskogo myasokombinata.  
(MEAT,  
hyg. aspects of prep. of meat products (Rus))  
(FOOD PRESERVATION,  
hyg. of prep. of meat products (Rus))

KHEYFETS, M.A.

USSR / Microbiology - Sanitary Microbiology

F-3

Abs Jour: Referat. Zh. Biol., No. 1, 1958, 656

Author : Kheyfets, M.A.

Title : Quantitative Determination of Bacterial Spores and the Sources of Their Entry Into Sausage

Orig Pub: Vopr. pitaniya, 1956, 15, No. 5, 87-88

Institute: Iz LABORATORII Leningradskogo myasokombinata imeni S.M. Kirova.

Abstract: The materials to be examined for spore content (extracts from beef 1:10 and 1:100, extract from spices 1:10,000 and 1:100,000) should first be heated at 75° for 20 minutes in order to destroy vegetative forms. As observed by the author, beef contains very few spores which, moreover, are not heat-resistant. A much larger number of spores is contained in pepper and these possess a much higher heat resistance. The simplest method of preventing sausage contamination by spores

Card 1/2

USSR / Microbiology - Sanitary Microbiology

F-3

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Abs Jour: Referat. Zh. Biol., No. 1, 1958, 656

is to use pepper sterilized by autoclaving.

Card 2/2

**KHEYFETS, M., kandidat biologicheskikh nauk.**

Protective packaging of semismoked sausage. Mias. ind. SSSR no.2:  
19-20 '57. (MLRA 10:5)

1. Leningradskiy myasokombinat.  
(Packaging for shipment) (Sausage)

KHEYFETS, M. A.

KHEYFETS, M.A., kand.biologicheskikh nauk

Temperature for the incubation of cultures for sanitary analysis.  
Gig. i san. 22 no.5:92 My '57. (MIRA 10:10)

1. Iz Tsentral'noy laboratorii Leningradskogo myasokombinata.  
(FOOD,  
microbiol. exam., temperature for incubation of  
cultures (Rus))  
(MICROORGANISMS,  
in food temperature for incubation of cultures in  
analysis (Rus))

*KHEYFETS, M.*  
KHEYFETS, H., kand. biol. nauk.

Efficient methods of microbiological inspection in the manufacture  
of sausages. Mias. ind. SSSR 28 no.6:50-51 '57. (MIRA 11:1)

1. Leningradskiy myasokombinat.  
(Meat--Bacteriology)

KHEYFETS, M.A.

~~Some items of laboratory equipment.~~ Lab.delo 4 no.5:8-0 '58  
(MIRA 11:11)

1. Iz Tsentral'noy laboratorii Leningradskogo myasokombinata.  
(LABORATORIES--EQUIPMENT AND SUPPLIES)

**KHEYFETS, M.A.,** kand.biol.nauk

Control of cleanliness of equipment in food plants. Sig. 1 san 23  
no.5:51-53 My '58 (MIRA 11:6)

1. Iz Tsentral'noy laboratorii Leningradskogo myasokombinata.  
(SANITATION  
control of cleanliness of equipment in eating  
establishments (Rus))

USSR / Microbiology. General Microbiology. Effect  
of External Factors. Disinfection. F

Abs Jour : Ref. Zhur - Biol., No 21, 1958, No 95001

Author : ~~Kheyfets, M. A.~~

Inst :

Title : On the Heat Resistance of Asporous Bacteria.

Orig Pub : Mikrobiologiya, 1958, 27, No. 2, 189-191.

Abstract : In an aqueous medium under continuous heating (increase rate of temperature 1° per minute), the temperature survival limit of asporous bacilli-like bacteria is 63°; of cocci, up to 72°. Melted fat, added to the medium, creates around the cells a dry membrane which, if it is preserved for the period of the temperature effect, keeps the bacteria from perishing.

Card 1/1

*Myasnoy kombinat im. S. M. Kirov,  
Leningrad.*

KHEIFETS, M.; ZAKORDONETS, V.

Microbiology of the production of hematogen. Mias.ind.SSSR  
30 no.1:54-55 '59. (MIRA 12:4)

1. Leningradskiy myasokombinat.  
(Hematogen--Bacteriology)

~~KHAYETS~~, M., kand. biolog. nauk

Determining the resistance of glue to decay and mold and  
selection of a preserving agent. Mias. ind. SSSR 30 no.3:  
27-28 '59. (MIRA 12:9)

1. Leningradskiy myasekombinat.  
(Glue)

KHEYFETS, M.; ZAKORDONETS, V.

Microbiological study of industrial gastric juices. Mias.ind.SSSR  
30 no.6:50 '59. (MIRA 13:4)

1. Leningradskiy myasokombinat.  
(GASTRIC JUICE--PRESERVATION).

KHEYFETS, M.A.

Air as an active element of a culture medium. Zhur. mikrobiol.  
epid. i immun. 31 no. 5:120-121 My '60. (MIRA 13:10)

1. Iz Tsentral'noy laboratorii Leningradskogo myasnogo kombinata.  
(AIR) (BACTERIOLOGY--CULTURES AND CULTURE MEDIA)

KHEYFETS, M.A.

Sanitary and bacteriological standards in the sausage industry.  
Vop. pit. 20 no. 5:84-87 S-0 '61. (MIRA 14:10)

1. Iz opornogo punkta Vsesoyuznogo nauchno-issledovatel'skogo  
instituta myasnoy promyshlennosti pri Leningradskom myasokombinate.  
(MEAT INDUSTRY--HYGIENIC ASPECTS)

KHEYFETS, M.A.

Notes concerning the microbiological section of the journal of abstracts  
"Biologia." Mikrobiologiya 30 no.6:1139-1140 N-D '61. (MIRA 14:12)  
(MICROBIOLOGY--ABSTRACTS)

KHEYFETS, M.A.; ZAKORDONETS, V.S.; Primali uchastiye: PANKRATOVA, M.M.;  
CHEMODUROVA, O.P.; KULAKOVA, I.I.

Inequality of accumulation media for various types of Salmonella.  
Zhur. mikrobiol., epid. i immun. 40 no.4:107-113 Ap '63.  
(MIRA 17:5)

1. Iz Leningradskogo opornogo punkta Vsesoyuznogo nauchno-  
issledovatel'skogo instituta myasnoy promyshlennosti i Tsentral'-  
noy laboratorii Leningradskogo myasnogo kombinata.

KHEYFETS, M.A.; ZAKORDONETS, V.S.; PANKRATOVA, M.M.; CHEMODUROVA, O.P.

Rapid method of microbiological control of sausage production,  
Vop. pit. 23 no.2:87-88 Mr-Apr '64.

(MIRA 17:10)

1. Iz Tsentral'noy laboratorii Leningradskogo myasnogo kombinata.

KHEYFETS, M.A. (Leningrad)

State standards for bacteriological methods used in the  
testing of sausages and smoked foodstuffs. Vop.pit. 24  
no.3:78-81 My-Je '65. (MIRA 18:12)

1. Submitted June 29, 1964.

KHEVFETS, M.B.

EDEL'MAN, A.S., kand.tekhn.nauk; ~~KHEVFETS~~, M.B., inzh.

Method for controlling some processes of working metals by pressure.

TSvet.met. 28 no.3:67-69 Ky-Je '55

(MIRA 10:11)

(Power presses)

(Wire)

KHEYFETS, M.B.

136-2-12/22

AUTHOR: Edel'man, A.S., Candidate of Technical Sciences, and  
Kheyfets, M.B., Engineer.

TITLE: Extrusion of Aluminum Cable-coatings. (Pressovaniye alu-  
miniyevykh kabel'nykh obolochek)

PERIODICAL: Tsvetnyye Metally, 1957, No.2, pp. 67 - 73 (USSR)

ABSTRACT: In this article the production of extruded aluminum coatings to replace lead coatings on cables is dealt with. After enumerating the deficiencies of lead as a coating material, the authors show a table of relevant physical and mechanical properties of lead, lead-antimony, magnesium, zinc, copper, 99.5% aluminum and 99.99% aluminum from which the superiority of the latter is evident. Mentioning the fact that in the USSR the production of a aluminum coated cable was started in 1950-1951, the authors discuss processes used abroad and the selection of extrusion conditions for aluminum of various degrees of purity. Curves of initial and final pressures against temperature for extrusion of 13 and 6.0 mm diameter aluminum rod are given, together with a diagram of the vacuum installation used for preventing rupture of the aluminum coating by air compressed in the extrusion process; details are given of the process as used in the USSR with a sketch of the coating installation. For 99.85% purity aluminum the

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Extrusion of Aluminum Cable-coatings.

136-2-12/22

following values of parameters are recommended: ingot and ingot-container temperature, 430-460 °C, extrusion working pressure, 80-85 kg/mm<sup>2</sup>, maximal speed, up to 70/80 m/min, vacuum in container before start of extrusion 0.1-0.3 mm Hg. The methods adopted enable envelopes 6-35 mm in diameter and with wall thickness of 0.8-1.5 mm to be applied to cables from an ingot 205 mm in diameter and a total length of 1 020 mm with a container diameter of 210 mm. There are 4 figures, and two tables.

2/2

AVAILABLE: Library of Congress

KHEYFETS, M.

OKHOTNIKOV, G., inzhener; MIRONOV, V., kandidat tekhnicheskikh nauk;  
SHUSTROV, D., inzhener; KHEYFETS, M., inzhener.

Operating calculations in organizing fleet movements according to  
towing facilities. Rech.transp. 14 no.1:9-15 Ja '55. (MIRA 8:4)  
(Inland navigation)

*KHEYFETS, Movsha Berkovich*

OKHOTNIKOV, Georgiy Il'ich; MIRONOV, Viktor Petrovich; SHUSTROV, Dmitriy  
Mikiforovich; ~~KHEYFETS, Movsha Berkovich~~; KOMISSAROV, N.G.,  
retsensent; SVIRIDOV, A.A., red.; MAKRUSHINA, A.A.N., red.izd-va;  
TSVETKOVA, S.V., tekhn.red.

[The work of river navigation districts] Rabota flota po tiagovym  
plecham. Moskva, Izd-vo "Rechnoi transport," 1957. 76 p.  
(Inland water transportation) (MIRA 11:2)

*KHEYFETS, M.B.*

KOMISSAROV, N.G., inzh.; KHEYFETS, M.B., inzh.

Analyzing the effect of certain operational factors on  
transportation costs. Rech. transp. 17 no.2:4-8 F '58.

(MIRA 11:2)

(Transportation--Cost of operation)  
(Ship propulsion)

KHRYFETS, M.B., inzh.

Unified all-basin sailing schedule. Rech. transp. 17 no. 6:13-14  
Je '58. (MIRA 11:7)

1. Zamestitel' nachal'nika sluzhby ekspluatatsii Volzhskogo  
ob'yedinennogo parokhodstva.  
(Inland water transportation)

VOLOVOY, D.I., inzh.; KHEYFETS, M.B., inzh.

Calculating technological time losses on roadsteads. Rech.transp.

18 no.12:14-16 D '59.

(MIRA 13:4)

(Merchant marine--Cost of operation)

(Industrial organization)

KHEYFETS, M. B. LYAKHOV, K., starshiy inzh.

Integrated schedule for 1961 of steamship lines in the central basins.  
Rech. transp. 20 no. 5:4-8 My '61. (MIRA 14:5)

1. Zamestitel' nachal'nika sluzhby perevozok i dvizheniya flota  
Volzhskogo ob'yedinennogo rechnogo parokhodstva (for Kheyfets).  
(Inland water transportation) (Steamboat lines)

LYAKHOV, Konstantin Stepanovich , inzh.; KHEYFETS, Movsha Berkovich, inzh.; ARSEN'YEV, S.P., retsenzent; VLADIMIROV, A.I., retsenzent; BARAKIN, A.P., red.; MAKRUSHINA, A.N., red. izd-va; RIDNAYA, I.V., tekhn.red.

[Schedule of ship travel; principles of theory and calculation]Grafik dvizheniya flota; osnovy teorii i raschet. Moskva, Izd-vo "Rechnoi transport," 1962. 185 p.

(MIRA 15:11)

(Inland water transportation)

GERSHKOVICH, B.M., inzh.; KHEYFETS, M.B., inzh.

Device for hermetic sealing of panel joints. Stroil. i dor. mash.  
10 no.10:29-30 0 '65. (MIRA 18:10)

KHEYFETS, M.B., inzh.

Methods of determining the anchorage time needed for  
technical servicing of ships. Trudy LIVT no.57:51-62  
164.

(MIRA 18:11)

ACCESSION NR: AP4031820

S/0247/64/014/002/0364/0368

AUTHOR: Lebedev, F. M.; Kheyfets, M. G.

TITLE: Methods for simultaneous investigation of eyelid conditioned reflexes and the functional state of the cardiovascular system in humans

SOURCE: Zhurnal vysshey nervnoy deyatel'nosti, v. 14, no. 2, 1964, 364-368

TOPIC TAGS: eyelid, conditioned reflex, cardiovascular system, multichannel electrocardiograph, synchronous recording apparatus, electrocardiogram, sphygmogram, plethysmogram, phonocardiogram, conditioned reflex recording, eyelid position recording

ABSTRACT: A special six-channel electrocardiograph apparatus (see Enclosure) which synchronously records electrocardiograms, sphygmograms, plethysmograms, phonocardiograms, conditioned reflexes, and position of the eyelid is described. The special feature of this apparatus is that the processes are recorded by AC current of low frequency. This makes it possible to record very slow and even

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ACCESSION NR: AP4031820

stationary processes without distortion. In this case the positions of the eyelid can be recorded as well as position change. The selected 100 cps recording frequency is high enough to ensure adequate discrimination of investigated processes and at the same time is low enough for satisfactory electrocardiograph ink reproduction. Another feature is the independent AC generator unit which prevents the appearance of extraneous pickups to which multichannel electrocardiographs are particularly sensitive. Orig. art. has: 2 figures.

ASSOCIATION: Kafedra terapii dlya usovershenstvovaniya vrachey  
No. 1 voenno-meditsinskoy akademii im. S. M. Kirova (Therapy  
Department for the Advancement of Physicians of the No. 1 Military-  
Medical Academy)

SUBMITTED: 05Apr63

DATE ACQ: 07May64

ENCL: 02

SUB CODE: AM, SD

NO REF SOV: 003

OTHER: 000

Card 2/42

GRISHAYEV, I.A.; KHEYFETS, M.I.; SHENDEROVICH, A.M.

Errors in electron recording due to scattering on the walls of  
the donut and in the layer of air in front of the counters.

rib. i tekhn. eksp. 7 no.2:42-46 Mr-Ap '62. (MIRA 15:5)

1. Fiziko-tekhnicheskiy institut AN USSR.  
(Electrons--Scattering) (Betatron)

GRISHAYEV, I.A.; KHEYFETS, M.I.; SHENDEROVICH, A.M.

Errors in electron recording due to scattering on the walls of the donut and in the layer of air in front of the counters. Part 2. Prib. i tekhn. eksp. 7 no.2:46-49 Apr-Apr '62. (MIRA 15:5)

1. Fiziko-tekhnicheskiy institut AN USSR.  
(Electrons--Scattering) (Betatron)

L 1608-66 ENT(L)/T/EWA(h) IJP(c) AT

ACCESSION NR: AP5014557

UR/0181/65/007/006/1642/1643

AUTHOR: Kheyfets, M. I. 44.55

TITLE: Concerning the interaction between conduction electrons and lattice vibrations in a semiconductor 44.55, 21

SOURCE: Fizika tverdogo tela, v. 7, no. 6, 1965, 1642-1648

TOPIC TAGS: conduction electron, crystal lattice vibration, semiconductor property, optic activity, magnetohydrodynamic wave, transparency band, absorption band, resonance absorption

ABSTRACT: The author analyzes the induced interaction between carriers and lattice ions in a semiconductor, with account taken of the spatial dispersion or of the external magnetic field, and assesses the effect of this interaction on the manner in which new transparency bands appear in a semiconductor. The high-frequency properties of optically active and inactive isotropic semiconducting media are studied by taking into account the influence of the stimulated inter-

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L 1608-66

ACCESSION NR: AP5014557

action. A system of equations comprising Maxwell's equations, the kinetic equation for the free carriers in the conduction band, and the equations for the polarization vector is solved by means of a plane-wave expansion, with account taken of the dispersion only in the case when there is no magnetic field. The propagation of magneto-hydrodynamic and helicoidal waves in semiconductors with equal densities of two groups of carriers are considered. The results show that the interaction between the conduction electrons and the lattice vibrations leads to the appearance of additional transparency bands or to the vanishing of regions of resonant absorption. The author is sincerely grateful to F. G. Bass<sup>48</sup> for suggesting the topic and for many hints, and to V. M. Yakovenko for useful discussions.<sup>55</sup>  
Orig. art. has: 23 formulas and 6 figures.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN UkrSSR, Khar'kov  
(Physicotechnical Institute, AN UkrSSR)

SUBMITTED: 09Nov64

ENCL: 00

SUB CODE: OP, SS

NR REF SOV: 003

OTHER: 001

Card

2/2

KHEYFETS, M.I.; SHAPIRO, V.D.

Limitations of the density value of interacting currents  
in opposing ultrarelativistic beams. Atom. energ. 19  
no.4:388-389 0 '65. (MIRA 18:11)

L 12095-66 EWT(1) 00  
 ACC NR: AP6000843 SOURCE CODE: UR/0181/65/007/012/3485/3489

AUTHOR: Kheyfets, M. I. 55  
 52  
 B

ORG: None

TITLE: Bound surface waves in semiconductors

SOURCE: Fizika tverdogo tela, v. 7, no. 12, 1965, 3485-3489

TOPIC TAGS: semiconducting material, surface property, electromagnetic wave phenomenon, *electromagnetic wave, electromagnetic property, vacuum*  
 21, 44, 55

ABSTRACT: The author investigates electromagnetic waves propagating on the interface between an optically-inactive isotropic semiconducting medium and vacuum. Account is taken of the fact previously established by the author (FTT v. 7, 1647, 1965) that the presence of free carriers leads to appreciable differences in the electromagnetic properties of the semiconductor from those of a dielectric. The behavior of these waves on the interface between the semiconductor in the vacuum is considered phenomenologically, without account of the spatial dispersion, both in the presence of a magnetic field and without such a field. An analysis of Maxwell's equations for this case shows that the interaction between the conduction electrons and the optical lattice vibrations leads to the appearance of new surface waves. In the presence of an

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L 12095-66

ACC NR: AP6000843

external magnetic field, the surface waves are possible only at certain angles between the surface of the semiconductor, the wave direction, and the direction of the magnetic field. The number of different surface states depends on the direction of the wave vector and on the parameters of the semiconductor. The author thanks F. G. Bass for suggesting the topic and a discussion of the results. / Orig. art. has: 22 formulas. 44,55

SUB CODE: 20/ SUBM DATE: 26Apr65/ ORIG REF: 005/ OTH REF: 001

Card

2/2

L 11060-66 EWT(1) GG

ACC NR: AP6002737

SOURCE CODE: UR/0056/65/049/006/1927/1933

AUTHOR: Kheyfets, M. I.

32  
B

ORG: Physicotechnical Institute, Academy of Sciences Ukrainian SSR (Fiziko-tekhni-cheskiy Institut Akademii nauk Ukrainsskoy SSR)

TITLE: Electromagnetic radiation emitted during passage of a fast charged particle through a semiconductor

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 49, no. 6, 1965, 1927-1933

TOPIC TAGS: Cerenkov radiation, exciton, semiconductor

ABSTRACT: The emission of coupled waves excited by a fast charged particle is investigated with space dispersion taken into account. It is shown that the Cerenkov radiation on transverse waves is distributed over the surface of two or three cones, the number of which depends on the sign of the effective exciton mass and parameters of the semiconductor. The direction of the Cerenkov radiation produced by the additional transverse wave emitted into a vacuum depends on the sign of the transverse exciton effective mass. The radiation from the transverse waves can enter a vacuum only if the effective mass of the longitudinal exciton is positive and the direction of the radiation coincides with that of the particle motion. Losses due to excitation of the additional waves are calculated. A formula is derived for the velocity requir-

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L 11060-66

ACC NR: AP6002737

ed for the particle to excite such waves. It is shown that the width of the emission spectrum on transverse waves can be changed by varying the concentration of free carriers. The emission spectrum produced in a vacuum by transverse waves consists of a number of narrow bands. The number of bands and their width depend on the parameters of the semiconductor. Orig. art. has: 41 formulas. [CS].

SUB CODE: 20 / SUBM DATE: 20Jul65/ ORIG REF: 008 ATB PRESS: 4176

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2/2

KHEYFETS, M.I.

Coupled surface waves in semiconductors. Fiz. tver. tela 7  
no. 12:3485-3489 D '65 (MIRA 19:1)

1. 15937-66 EMT(d)/FBD/EMI(1)/EMI(m)/ESC(k)-2/EMP(f)/EPF(n)-2/T/EMP(k)/EWA(h)/ETC(m)-6

ACC NR: AF6004414 SCIB/IJP(c) WG/WW SOURCE CODE: UR/0051/66/020/001/0133/0137

AUTHOR: Aleksandrov, A. P.; Genkin, V. N.; Kheyfets, M. I.

ORG: none

TITLE: Measurement of the population of the metastable level of the working medium of a laser

SOURCE: Optika i spektroskopiya, v. 20, no. 1, 1966, 133-137

TOPIC TAGS: laser optic material, laser theory, luminescence, laser pump

ABSTRACT: The authors discuss an experimental method for determining the relative number of excited molecules in a medium, based on the use of luminescence saturation. This research was motivated by the fact that knowledge of the maximum attainable population of the metastable level is one of the main criteria in the choice of a laser medium. The luminescence saturation curves of ruby were investigated. The luminescence was produced by a xenon flash-lamp pump. The luminescence intensity was plotted against the energy dissipated in the lamp supply circuit. The pump energy was assumed to be a linear function of luminescence, so that the relationship between the pump energy and the energy supplied to the laser could be readily determined. Luminescence was excited in a laser consisting of an elliptical reflector, with the ruby and the xenon pump lamp located in its foci. The measurement was made in two stages. In the first the luminescence was plotted as a function of the voltage in the linear mode (with the diaphragm), and in the second the same plot was obtained in the saturation mode (without the diaphragm). The results show that the

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DC: 621.372.9 : 532

L 15937-66

ACC NR: AP600414

pump energy was not proportional to the electric energy at high and at low voltages. The tests were made with two ruby samples. One of the samples gave results which agreed with theory. The results from the other sample were not in agreement with theory. The disagreement in the second case is attributed to the fact that only part of the ruby volume participated in the laser action. It is emphasized in conclusion that such experiments yield only the metastable-level population averaged over the volume, which is sufficient information for the investigation of new laser media. Orig. art. has: 4 figures and 6 formulas. [02]

SUB CODE: 20/ SUBM DATE: 13Apr64/ ORIG REF: 002/ OTH REF: 004/ ATD PRESS:

4202

KHEYFETS, M.I.

Electromagnetic radiation during the passage of a fast charged particle through a semiconductor. Zhur.eksp. i teor.fiz. 49 no.6:1927-1933 D '65.

(MIRA 19:1)

1. Fiziko-tekhnicheskiy institut AN UkrSSR. Submitted July 20, 1965.

L 28022-66	ENI(1)/EIC(f)/EPF(n)-2/ENG(m)	IJP(c)	AT
ACC NR: AP5026448	SOURCE CODE: UR/C089/65/019/004/0388/0389		
AUTHOR: <u>Khayfets, M. I.; Shapiro, V. D.</u>			
ORIG: None			
TITLE: Density limitations of interacting currents in the opposite ultra-relativistic streams			
SOURCE: Atomnaya energiya, v. 19, no. 4, 1965, 388-389			
TOPIC TAGS: plasma physics, plasma pinch, plasma stability			
ABSTRACT: The authors discuss the plasma collective instabilities in the system of two streams having densities $n_1$ and $n_2$ and flowing in opposite directions with relativistic velocities $v_1$ and $v_2$ along the axis y. It was assumed that the electrostatic interaction between two beams was compensated by the beam magnetic repulsion. Thus, the changes in densities were regarded as negligible quantities. Under this assumption, the authors presented first a formula expressing the tensor of dielectric constant and then by using Maxwell equations, obtained the dispersion relation. After assuming that the beam thickness was less than 0.01 cm and $v_1 = 0$ and $v_2 = -0$ and on investigating graphically the simplified dispersion relation, the authors derived a formula for the			
Card 1/2	UDC: 533.9		

L 28022-66

ACC NR: AP5026448

maximum wave increment  $\text{Im}\omega$ . Thus, the increment growth and time were finally expressed as:

$$\text{Im}\omega = \sqrt{2\Omega_1\Omega_2}; \quad \tau = (2\Omega_1\Omega_2)^{-1/2}.$$

Here the root can be determined from the expression:  $\Omega_1 = \frac{4\pi n_1 e^2}{m_1}$ . Com-

paring the time with the interaction time, the maximum beam density could be calculated for the case when the instability is negligible. An example of calculation of this density for electron and electron-positron beams was given. The authors thank Ya. B. Faynberg for discussions of results. Orig. art. has: 9 formulas.

SUB CODE: <sup>20</sup>~~RP~~ / SUBM DATE: 18Feb65 / ORIG REF: 001 / OTH REF: 004

Card 2/2

L 37924-66 FBD/EWT(1)/EEC(k)-2/I/EWP(k) IJP(c) WG

ACC NR: AP6022079

SOURCE CODE: UR/0141/66/009/003/0538/0544

AUTHOR: Butylkin, V. S.; Gurevich, G. L.; Kheyfets, M. I.; Khronopulo, Yu. G.

ORG: Scientific-research Institute of Radiophysics, Gor'kiy University  
(Nauchno-issledovatel'skiy radiofizicheskiy institut pri Gor'kovskom universitete)

TITLE: Effect of the resonance field on the operation of a two-photon laser

SOURCE: IVUZ. Radiofizika, v. 9, no. 3, 1966, 538-544

TOPIC TAGS: laser theory, laser R and D, two photon laser

ABSTRACT: R. L. Garwin considered two-photon processes in a substance incorporated within the laser resonator (IBM J. Rand D, 8, 338, 1964); natural frequencies of the resonator were  $\omega_1, \omega_2, \omega_3$ ; the field of near- $\omega_{12}$  frequency was assumed to be nonexistent. As the resonator practically always has a finite Q at  $\omega_{12}$ , the present article examines possible effects of the  $\omega_{12}$  resonance field on the laser operation. Integral equations describing the fields are added to material-system equations; the solutions are analyzed for these cases: (a) one of the fields is specified and (b) no field is specified. It is found that: (1) A resonator tuned to the frequency of transition between active levels of the substance may considerably impair the excitation conditions in a two-photon laser; (2) The number of excited particles required for the stationary generation of the combination field does not change substantially. Orig. art. has: 2 figures and 34 formulas.

[03]

SUB CODE: 20 / SUBM DATE: 31Aug65 / ORIG REF: 005 / OTH REF: 001

Card 1/1 MRP

UDC: 621.378.325

L 38104-66 FBD/EWT(1)/EEC(k)-2/T/EWP(k) IJP(c) WG

ACC NR: AP6022080

SOURCE CODE: UR/0141/66/009/003/0545/0549

AUTHOR: Butylkin, V. S.; Gurevich, G. I.; Kheyfets, M. I.; Khronopulo, Yu. G. 38  
B

ORG: Scientific Research Institute of Radiophysics, Gor'kiy University  
(Nauchno-issledovatel'skiy radiofizicheskiy institut pri Gor'kovskom universitete)

TITLE: Generation of the second harmonic in a resonant laser 25

SOURCE: IVUZ. Radiofizika, v. 9, no. 3, 1966, 545-549

TOPIC TAGS: laser theory, laser R and D, nonlinear optics

ABSTRACT: As a strong  $\omega$ -field exists in the resonator of conventional lasers and as the populations of active levels are inverted, a  $2\omega$ -field may arise due to the anti-Stokes process in the laser active substance. Equations describing this process are set up and analyzed. It is found that the stationary generation of a  $2\omega$ -field can materialize only with a sufficiently large (giant pulse) number of excited particles ( $10^{19}$  --  $10^{21}$ ); the population difference of such an order can be obtained under pulsed-Q operating conditions. Even under the giant-pulse conditions, frequency doubling is possible only when the active medium meets some rigorous requirements: the quantity  $|os|$  must be very large and the  $2 \rightarrow 1$  transition must be highly forbidden,  $|p_{12}| < 10^{-20}$  CGSE. Orig. art. has: 1 figure and 28 formulas. [03]

SUB CODE: 20 / SUBM DATE: 31Aug65 / ORIG REF: 003 / OTH REF: 001/ ATD PRESS: 5046

Card 1/1 MLP

UDC: 621.378.325

L 45982-66 EWT(1)

ACC NR: AP6028630

SOURCE CODE: UR/0057/66/036/008/1516/1519

AUTHOR: Kheyfets, M.I.

ORG: none

TITLE: Electrostatic oscillations in bounded dielectrics, semiconductors and plasmas

SOURCE: Zhurnal tekhnicheskoy fiziki, v.36, no. 8, 1966, 1516-1519.

TOPIC TAGS: electromagnetic wave oscillation, depolarization, dispersion equation, dielectric polarization, magnetoactive plasma, semiconductor plasma, mathematic physics

ABSTRACT: The author discusses the homogeneous and inhomogeneous proper oscillations of a semiconductor or plasma ellipsoid with particular attention to the limiting cases of an infinite circular cylinder or an infinite plane slab. The dielectric tensor is written in the form  $\epsilon_{ik} = \delta_{ik} + 4\pi\chi_{ik}$  and the proper frequencies are obtained from the equation  $|\delta_{ik} + 4\pi n_{ii}\chi_{ik}(\omega)| = 0$  where the  $n_{ii}$  are the depolarizing factors. Expressions for the dielectric tensor of a plasma and of a semiconductor, both in an external magnetic field, are substituted into the above equation and the roots are discussed for limiting values of the depolarizing factors. It is shown that homogeneous oscillations can exist even in an isotropic medium. The inhomogeneous oscillations of a slab are discussed, dispersion equations are derived, and the conditions on the dielectric tensor are found under which symmetric and antisymmetric solutions exist.

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L 45982-66

ACC NR: AP6028630

6

Inhomogeneous proper oscillations cannot arise in an isotropic medium. An error in sign in the work of G.A.Begiashevili (FMM, 19, 264, 1965) is pointed out, which led that author erroneously to conclude that inhomogeneous volume waves could exist when the ratio of the transverse to the longitudinal dielectric constants is positive. The author thanks F.G. Bass and M.I. Kaganov for discussing the results. Orig. art. has: 18 formulas.

SUB CODE: 20

SUBM DATE: 30Nov65

ORIG. REF: 006

OTH REF: 003

Card 2/2

KHEYFETS, M.N.

Analysis of the fluctuation of the level of the Lake Issyk-Kul' in the  
20th century. Rab. Tian'.-Shan'.vysokogor. fiz.-geog. sta. no.7:15-27  
'64. (MIRA 17:12)

L 04079-67 EWT(m)/Y DJ  
ACC NR: AP6025421 (N)

SOURCE CODE: UR/0143/66/000/007/0062/0069

AUTHOR: Smel'nitskiy, S. G. (Candidate of technical sciences); Kheyfets, M. S. (Engineer); Kazanskiy, V. N. (Engineer)

ORG: Lenin Power Institute, Moscow (Moskovskiy ordena Lenina energeticheskii institut)

TITLE: Electric capacity method for measuring the air content in a stream of turbine oil //

SOURCE: IVUZ. Energetika, no. 7, 1966, 62-69

TOPIC TAGS: gas sensing device, turbine engine

ABSTRACT: A special test unit has been constructed for measuring the air content of turbine oil. Details of a special arrangement for calibrating the electric capacity sensing devices are shown in a figure. Measurements were made of the flow velocity of the oil-air mixture, the temperature of the mixture, the air content of the mixture, and the dispersion of air bubbles in the flow. A figure gives differential curves of the calculated distribution of the air bubbles in the flow of the oil-air mixture. The sensing elements, placed on the vertical sections of the outlet pipe, guarantee reliable readings at practically

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UDC: 621.892.098+621.317.39+546.217

L 04079-67

ACC NR: AP6025421

any desired flow velocity; sensing elements, located in the horizontal sections, can be used only at Reynolds numbers  $Re \geq 2000$ . Orig. art. has: 4 formulas, 5 figures and 1 table.

SUB CODE: 13 / SUBM DATE: 25Dec64/ ORIG REF: 008

KH

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KHMYETS, M.Ye.

Human error of the observer in pendulum measurements of the  
acceleration of gravity. Sbor.st.po geod. no.9:29-41 '55.  
(Pendulum) (Gravity) (MLRA 9:6)

**KHEYFETS, M.Ye.**

More data on recording changes of the chronometer rate in  
pendulum observations. Sbor.st.po geod. no.9:79-89 '55.  
(Pendulum) (Chronometer) (MIRA 9:6)